Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method comprising:

providing an interface to store data independent of for multiple data storage mechanisms, the interface having a plurality of generic routines commonly shared by the data storage mechanisms;

upon receipt of a request to store state data of a virtual machine, the request received from an application executed by the virtual machine: , calling the generic routines as a function of one of the data storage mechanisms; and

executing the called routines to store the data according to the one of the data storage mechanisms.

wherein the interface provides a unique identifier associated with the data to store with the data in persistent storage.

identifying a storage mechanism referenced by the request;
using the routines, storing the state data on the identified storage mechanism;
assigning a unique identifier to the stored state data;
indexing the stored state data with the unique identifier; and
after a failure of the virtual machine, recovering the stored state data based on the unique identifier.

- 2. (Original) The method of claim 1, wherein the providing an interface includes: providing a plurality of parameters to define the data storage mechanisms.
- 3-5. (Canceled).
- 6. (Currently amended) The method of claim 1, wherein the data storage mechanisms include byte array read/write, file I/O, and <u>Java Database Connectivity (JDBC)</u>.

7-10. (Canceled).

11. (Currently amended) A method comprising:

providing a persistence class to include generic routines to read or write data in persistent data storage independent of data storage mechanisms;

receiving a request to read or write the data state data of a virtual machine, the request received from an application executed by the virtual machine;

determining which of the selecting a data storage mechanisms mechanism to use; if the request is a data write,

instantiating the persistence class to create a persistence object specific to the determined data storage mechanism,

using the persistence object to instantiate an entity class to create creating a persistence data object into which to write the data to make the data persistent,

assigning a unique identifier to the persistence data object;

writing the state data into the persistence data object;

storing a record of the unique identifier and the persistence data object;

directing an operating system to access the data storage, and

writing the data object to the data storage according to the determined data
storage mechanism; and

if the request is a data read,

instantiating the persistence class to create a persistence object specific to the determined data storage mechanism,

using the persistence object to instantiate an entity class to create creating a persistence data object to be loaded with the data-to-make the data persistent,

directing an operating system to access the data storage, and

locating state data to be read based on a unique identifier associated with a stored persistence data object; and

loading the <u>state</u> data <u>from the stored persistence data object</u> into the <u>created</u> <u>persistence</u> data object according to the determined data storage mechanism.

12 – 15. (Canceled)

16. (New) A computer-readable medium storing instructions which, when executed by a processor, cause the processor to perform a method comprising:

providing an interface to store data for multiple data storage mechanisms, the interface having a plurality of routines commonly shared by the data storage mechanisms;

upon receipt of a request to store state data of a virtual machine, the request received from an application executed by the virtual machine:

identifying a storage mechanism referenced by the request;
using the routines, storing the state data on the identified storage mechanism;
assigning a unique identifier to the stored state data;
indexing the stored state data with the unique identifier; and
after a failure of the virtual machine, recovering the stored state data based on the unique identifier.

17. (New) A computer-readable medium storing instructions which, when executed by a processor, cause the processor to perform a method comprising:

receiving a request to read or write state data of a virtual machine, the request received from an application executed by the virtual machine;

selecting a data storage mechanism to use;

if the request is a data write,

creating a persistence data object into which to write the data,
assigning a unique identifier to the persistence data object;
writing the state data into the persistence data object;
storing a record of the unique identifier and the persistence data object;
directing an operating system to access the data storage, and
writing the data object to the data storage according to the determined data
storage mechanism; and

if the request is a data read,

creating a persistence data object to be loaded with the data directing an operating system to access the data storage, Appl. No. 10/720,285 Reply to Office Action of Feb. 7, 2007

locating state data to be read based on a unique identifier associated with a stored persistence data object; and

loading the state data from the stored persistence data object into the created persistence data object according to the determined data storage mechanism.